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| 10/575,953      | 04/13/2006  | Renato Cornacchiari  | 41862AJlp           | 5079             |

7590  
Modiano & Associati  
Via Meravigli 16  
Milano, 20123  
ITALY

03/22/2007

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| EXAMINER |
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LLOYD, EMILY M

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| ART UNIT | PAPER NUMBER |
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3736

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 03/22/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/575,953

Applicant(s)

CORNACCHIARI, RENATO

Examiner

Emily M. Lloyd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 10-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/13/2006
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

2. The abstract of the disclosure is objected to because it does not mention comparison of the rehabilitation path with the path traced by the patient. Correction is required. See MPEP § 608.01(b).
3. The disclosure is objected to because of the following informalities: page 6 lines 4-6 should be moved to the beginning of the first page and placed under the heading "Cross-reference to related applications"; page 1 line 15 should say "regain" instead of "require"; "the system" should be inserted between the words "allow to" or "allows to" in

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the following locations: page 1 line 21, page 2 line 27, page 3 line 30, page 4 line 9, and page 5 line 21; page 2 line 6 should have "the patient" inserted between the words "allow to"; page 2 line 21 should say "paths" instead of "path"; page 3 line 19 should have the word "the" inserted before the word "non-limiting"; and page 6 lines 1-3 should be revised for clarity.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 18 recites the limitation "said pressure signal" in the second line in the claim. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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8. Claims 10, 11, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent 5772611 (Hocherman).

Hocherman discloses a system for performing induced limb movements, particularly for rehabilitating, sports-related and similar purposes, comprising a central processing unit (computer Column 3 line 17, a computer inherently comprises a central processing unit), at least one peripheral unit (digitizer tablet 4 and handle 22, Figure 1) that is adapted to be used by a patient in order to reproduce a rehabilitation path displayed by said processing means (Column 3 lines 59-60), said peripheral unit being provided with position sensors ("Tablet 4 senses the instantaneous position of the stylus" Column 3 lines 33-34) that are adapted to transmit position signals to said processing unit in order to reconstruct the path traced by the patient on said processing unit ("any path followed by the handle is shown up as ... a continuous line at a scale of 1:1 and in real time on monitor screen 6" Column 3 lines 34-37). Hocherman also discloses the system where the processing unit comprises means that are adapted to process said signals that arrive from said sensors of said peripheral unit and to make a comparison between said path traced by the patient and said predefined path displayed by said processing unit (Column 4 lines 8-11, also Figures 2 and 3). Additionally, Hocherman discloses the system where the peripheral unit is moved by the patient over a flat surface (handle 22 is moved over the planar digitizer tablet 4, Figure 1 and also Column 3 lines 13-14).

9. Claims 10 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent 6162189 (Girone et al.).

Girone et al. disclose a system for performing induced limb movements, particularly for rehabilitating, sports-related and similar purposes, comprising a central processing unit (host computer 18, Figure 1, a computer inherently comprises a central processing unit), at least one peripheral unit (rehabilitation device 12, Figure 1) that is adapted to be used by a patient in order to reproduce a rehabilitation path displayed by said processing means (Column 12 lines 9-12), said peripheral unit being provided with position sensors ("Measured positions" Column 4 lines 24) that are adapted to transmit position signals to said processing unit (Column 4 lines 24-28) in order to reconstruct the path traced by the patient on said processing unit (Column 12 lines 9-12). Girone et al. also disclose the system where the peripheral unit is moved by the patient over a flat surface (moving mobile platform 25 is moved over fixed platform 29, both of which are flat, Figure 2A).

10. Claims 10 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent 5429140 (Burdea et al.).

Burdea et al. disclose a system for performing induced limb movements, particularly for rehabilitating, sports-related and similar purposes, comprising a central processing unit (computer workstation 14, Figure 2, a computer inherently comprises a central processing unit), at least one peripheral unit (sensing glove 30, Figure 2, also rehabilitation hardware 17, Figure 5A) that is adapted to be used by a patient in order to reproduce a rehabilitation path displayed by said processing means (virtual leg 66 is on path A2 in Figure 5A and patient's leg 60 is on path A2 in Figure 5B), said peripheral unit being provided with position sensors (Column 4 lines 1-2 and 15-17) that are

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adapted to transmit position signals to said processing unit (Column 4 lines 24-30) in order to reconstruct the path traced by the patient on said processing unit (Column 7 lines 13-20, in order for the processing unit to provide force feedback rehabilitation means with the amount of force to apply to the body, it has to know the path the body has taken so far). Burdea et al. also disclose the system where the peripheral unit is moved by the patient over a non-flat surface (sensing glove 30 on real object 34, Figure 2, where real object 34 is drawn as a ball in Figure 2 and described as preferably having a spherical shape, Column 4 lines 54-55).

11. Claims 10-15 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent 5791351 (Curchod).

Curchod discloses a system for performing induced limb movements, particularly for rehabilitating, sports-related and similar purposes, comprising a central processing unit (processor 30, Figure 2), at least one peripheral unit (sensors 22, Figure 2) that is adapted to be used by a patient in order to reproduce a rehabilitation path displayed by said processing means (Column 6 lines 9-12), said peripheral unit being provided with position sensors (sensors 22, Figure 2, that measure position Column 4 lines 27-36) that are adapted to transmit position signals to said processing unit (Column 4 lines 50-51) in order to reconstruct the path traced by the patient on said processing unit (Column 4 lines 51-58). Curchod also discloses the system where the processing unit comprises means that are adapted to process said signals that arrive from said sensors of said peripheral unit and to make a comparison between said path traced by the

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patient and said predefined path displayed by said processing unit (Column 6 lines 9-16).

Curchod discloses that the peripheral unit is connected to the processing unit by means of a radio link (Column 11 line 14), an infrared link (an optical system, Column 11 line 14, and infrared data transmission is a type of optical data transmission), and a cable (wires, Column 9 lines 51-53).

Curchod also discloses the system where the peripheral unit is moved by the patient over a flat surface (the device is portable and can be used anywhere the golfer desires, Column 12 lines 35-38, and Figure 1 depicts a golfer in a room, Column 3 line 48, and the floor of a room is a flat surface).

### ***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.



Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 6454706 (Pullman) in view of Hocherman.

Hocherman discloses the claimed invention except for Hocherman's at least one peripheral unit being provided with a pressure sensing means that is adapted to send a pressure signal to the processing unit, and the processing unit comprising means that are adapted to process the pressure signal in order to compare it with a pressure value that is preset in said processing unit and is associated with a particular program and path that the patient is following. Pullman teaches at least one peripheral unit being provided with a pressure sensing means (pressure data is sent from electronic tablet 12 in Figure 1, also "The digitizing screen 34 ... is a pressure sensitive X-Y plane recording device" Column 8 lines 10-13) that is adapted to send a pressure signal to the processing unit (pressure data is sent to the microprocessor 16 in Figure 1, and microprocessor and digitizing screen 34 are both part of electronic tablet 30, Column 8 lines 4-6), and the processing unit comprising means that are adapted to process the pressure signal in order to compare it with a pressure value that is preset in said processing unit and is associated with a particular program and path that the patient is following (spiral rating data from microprocessor 16 is the result of this analysis, see also Column 6 lines 39-43). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use such a pressure sensing means that is adapted to send a pressure signal to the processing unit, and the processing unit comprising means that are adapted to process the pressure signal in order to compare it with a pressure value that is preset in said processing unit and is associated with a

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particular program and path that the patient is following as taught by Pullman in the invention of Hocherman because the pressure data provided could be used to help better diagnose Parkinson's Disease.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emily M. Lloyd whose telephone number is 571-272-2951. The examiner can normally be reached on Monday through Friday 8:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on 571-272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Emily M Lloyd

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Examiner  
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EML

A handwritten signature in black ink, appearing to read "M. H. Denbury". The signature is written in a cursive, flowing style with a large, stylized "M" and "D".